

CLAIMS

1. A foreign substance inspection apparatus
comprising:

a rotatably supported container with an opening
5 surface in a substantially horizontal state;

a liftably supported lift member inside the
container;

a drive control device for controlling rotation of
the container and rise and fall of the lift member;

10 a scraping member provided with a scraping part and
disposed on the opening surface of the container and

an imaging device for obtaining images of powder
material contained in the container,

wherein the powder material contained in the
15 container is pushed upward with the rise of the lift member
so as to be scraped with the scraping member,

the imaging device is located so as to obtain images
of the surface of the powder material that is exposed on the
opening surface and

20 image data outputted from the imaging device are
subjected to image processing, whereby foreign substances
mixed into the powder material are detected.

2. The foreign substance inspection apparatus
25 according to Claim 1, wherein the lift member rotates together

with the container.

3. The foreign substance inspection apparatus
according to Claim 1,

5 wherein the powder material is contained in a
ring-shaped region provided in the container and
the imaging device is disposed above the region.

4. The foreign substance inspection apparatus
10 according to Claim 1 further comprising:
a feed screw rod which threads with the lift member,
wherein the drive control device is provided with
a driving unit for rotating the container at a predetermined
speed of rotation and a transmitting member for transmitting
15 the rotation of the container to the lift member, and
the lift member rotates together with the container
so as to rise and fall along the feed screw rod.

5. The foreign substance inspection apparatus
20 according to Claim 4, wherein the feed screw rod is configured
to be rotatably driven at a predetermined difference in speed
of rotation between the feed screw rod and the lift member.

6. The foreign substance inspection apparatus
25 according to Claim 1, wherein the lift member is supported

in the container from above.

7. The foreign substance inspection apparatus
according to Claim 1,

5 wherein a bottom surface of the container is closed
and

 the lift member is supported in the container from
above.

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